Listing of Claims:

This listing of claims replaces all prior versions, and listings, of claims in the captioned application.

1. (Original) A compound of formula (I),

$$(CH_2)_{n} \xrightarrow{R^2} (CH_2)_{\overline{n}} \xrightarrow{X} X \xrightarrow{R^1} 0 \qquad (1)$$

the N-oxide forms, the addition salts and the stereo-chemically isomeric forms thereof, wherein

X is -N= or -CR⁴=, wherein R⁴ is hydrogen or taken together with R¹ may form a bivalent radical of formula -CH=CH-CH=CH-;

Y is -N< or -CH<;

R1 is C1-6alkyl or thienyl;

R² is hydrogen or taken together with R³ may form =O;

R3 is hydrogen, C1-6alkyl or a radical selected from

$$\begin{array}{lll} -NR^6R^7 & & (a-1), \\ -O\text{-H} & & (a-2), \\ -O\text{-R}^8 & & (a-3), \\ -S\text{-}R^9 & & (a-4), \text{ or } \\ \hline -C\equiv N & & (a-5), \end{array}$$

wherein

 R^6 is –CHO, C_{1-6} alkyl, hydroxy C_{1-6} alkyl, C_{1-6} alkylcarbonyl, di $(C_{1-6}$ alkyl)amino C_{1-6} alkyl, C_{1-6} alkylcarbonylamino C_{1-6} alkyl,

piperidinylC₁₋₆alkyl, piperidinylC₁₋₆alkylaminocarbonyl, C₁₋₆alkyloxy,

C1-6alkyloxyC1-6alkyl, thienylC1-6alkyl, pyrrolylC1-6alkyl,

 $arylC_{1,6}alkylpiperidinyl, arylcarbonylC_{1,6}alkyl, arylcarbonylpiperidinylC_{1,6}alkyl, haloindozolylpiperidinylC_{1,6}alkyl, or <math>arylC_{1,6}alkyl(C_{1,6}alkyl)aminoC_{1,6}alkyl;$ and \mathbb{R}^7 is hydrogen or $C_{1,6}alkyl;$

 R^8 is C_{1-6} alkyl, C_{1-6} alkylcarbonyl or di(C_{1-6} alkyl)amino C_{1-6} alkyl; and R^9 is di(C_{1-6} alkyl)amino C_{1-6} alkyl;

or R3 is a group of formula

wherein

t is 0. 1 or 2:

Z is a heterocyclic ring system selected from

wherein each R10 independently is hydrogen, C1-6alkyl, aminocarbonyl, hydroxy,

$$-C_{16}$$
alkanediyl $-$ NH $-C_{16}$ alkanediyl $-$ NO

 C_{1-6} alkyloxy C_{1-6} alkyl, C_{1-6} alkyloxy C_{1-6} alkylamino, di(phenyl C_{2-6} alkenyl), piperidinyl C_{1-6} alkyl, C_{3-10} eycloalkyl C_{1-6} alkyl, aryloxy(hydroxy) C_{1-6} alkyl, haloindazolyl, aryl C_{1-6} alkyl, aryl C_{2-6} alkenyl, morpholino, C_{1-6} alkylimidazolyl, or pyridinyl C_{1-6} alkylamino; each R^{11} independently is hydrogen, hydroxy, piperidinyl or aryl;

aryl is phenyl or phenyl substituted with halo, C1-6alkyl or C1-6alkyloxy;

with the proviso that 6-(cyclohexyl-1*H*-imidazol-1-ylmethyl)-3-methyl-2(1*H*)-quinoxalinone is not included.

- 2. (Original) A compound as claimed in claim 1 wherein X is -N= or -CH=; R^1 is $C_{1-6}alkyl$; R^3 is hydrogen, $C_{1-6}alkyl$, a radical selected from (a-1), (a-2), (a-3) or (a-4) or a group of formula (b-1); R^6 is $di(C_{1-6}alkyl)$ amino $C_{1-6}alkyl$ or $C_{1-6}alkyl$ ox $C_{1-6}alkyl$; R^7 is hydrogen; R^8 is $di(C_{1-6}alkyl)$ amino $C_{1-6}alkyl$; t is 0 or 2; t is a heterocyclic ring system selected from (c-1), (c-5), (c-6), (c-8), (c-10), (c-12) or (c-13); each R^{10} independently is hydrogen, $C_{1-6}alkyl$, hydroxy, $C_{1-6}alkyl$ oxy $C_{1-6}alkyl$, $C_{1-6}alkyl$ oxy $C_{1-6}alkyl$, or pyridinyl $C_{1-6}alkyl$ amino, morpholino, $C_{1-6}alkyl$ imidazolyl, or pyridinyl $C_{1-6}alkyl$ amino; each R^{11} independently is hydrogen or hydroxy; and aryl is phenyl.
- 3. (Previously Presented) A compound according to claim 1 wherein n is 0; X is CH; Q is –NH-, -CH₂-CH₂- or -CHR⁵-, wherein R⁵ is hydrogen, hydroxy, or arylC₁₋₆alkyl; R¹ is C₁₋₆alkyl; R² is hydrogen; R³ is hydrogen, hydroxy or a group of formula (b-1); t is 0; Z is a heterocyclic ring system selected from (c-8) or (c-13); each R¹⁰ independently is hydrogen; and aryl is phenyl.

4. (Currently Amended) A compound selected from the group consisting of:

Compound 7

Compound 2

Compound 1

Compound 11

and the N-oxide forms, the pharmaceutically acceptable addition salts and the stereochemically isomeric forms thereof.

5. (Cancelled)

- (Previously Presented) A pharmaceutical composition comprising pharmaceutically acceptable carriers and as an active ingredient a therapeutically effective amount of a compound as claimed in claim 1.
- (Cancelled).
- 8. (Currently Amended) A method of treating in a subject a PARP mediated disorder, said method comprising administering to the subject a therapeutically effective amount of a compound of formula (I)

$$(CH_2)_8 \xrightarrow{R^2} (CH_2)_8 \xrightarrow{X} X_{\text{Pl}} CH_2$$
(I)

the N-oxide forms, the pharmaceutically acceptable addition salts and the stereo-chemically isomeric forms thereof, wherein

X is -N= or -CR⁴=, wherein R⁴ is hydrogen or taken together with R¹ may form a bivalent radical of formula -CH=CH-CH=CH-:

$$\begin{split} &Q \text{ is } -NH, \text{ -}O\text{-}, \text{-}C(O)\text{-}, \text{-}CH_2\text{-}CH_2\text{-} \text{ or } \text{-}CHR^5\text{-}, \\ &\text{wherein } R^5 \text{ is hydrogen, hydroxy, } C_{1\text{-}6}\text{alkyl, aryl} C_{1\text{-}6}\text{alkyl}, C_{1\text{-}6}\text{alkyloxycarbonyl,} \\ &C_{1\text{-}6}\text{alkyloxy} C_{1\text{-}6}\text{alkylamino or haloindazolyl;} \end{split}$$

R1 is C1.6alkyl or thienyl;

R² is hydrogen or taken together with R³ may form =O:

R3 is hydrogen, C1-6alkyl or a radical selected from

wherein

R6 is -CHO, C1.6alkvl, hvdroxvC1.6alkvl, C1.6alkvlcarbonvl,

di(C1-6alkyl)aminoC1-6alkyl, C1-6alkylcarbonylaminoC1-6alkyl,

 $piperidinylC_{1\text{-}6}alkyl, piperidinylC_{1\text{-}6}alkylaminocarbonyl, C_{1\text{-}6}alkyloxy,$

 C_{1-6} alkyloxy C_{1-6} alkyl, thienyl C_{1-6} alkyl, pyrrolyl C_{1-6} alkyl,

aryl $C_{1\text{-}6}$ alkylpiperidinyl, arylcarbonyl $C_{1\text{-}6}$ alkyl, arylcarbonylpiperidinyl $C_{1\text{-}6}$ alkyl, haloindozolylpiperidinyl $C_{1\text{-}6}$ alkyl, or aryl $C_{1\text{-}6}$ alkyl $(C_{1\text{-}6}$ alkyl)amino $C_{1\text{-}6}$ alkyl; and R^7 is hydrogen or $C_{1\text{-}6}$ alkyl;

 R^8 is C_{1-6} alkyl, C_{1-6} alkylcarbonyl or $di(C_{1-6}$ alkyl)amino C_{1-6} alkyl; and R^9 is $di(C_{1-6}$ alkyl)amino C_{1-6} alkyl:

or R3 is a group of formula

wherein

t is 0, 1 or 2;

Z is a heterocyclic ring system selected from

wherein each R^{10} independently is hydrogen, $C_{1\text{-}6}$ alkyl, aminocarbonyl, hydroxy,

Page 8 of 15

 C_{1-6} alkyloxy C_{1-6} alkyl, C_{1-6} alkyloxy C_{1-6} alkylamino, di(phenyl C_{2-6} alkenyl), piperidinyl C_{1-6} alkyl, C_{3-10} cycloalkyl C_{1-6} alkyl, aryloxy(hydroxy) C_{1-6} alkyl, haloindazolyl, aryl C_{1-6} alkyl, aryl C_{2-6} alkenyl, morpholino, C_{1-6} alkylimidazolyl, or pyridinyl C_{1-6} alkylamino; each R^{11} independently is hydrogen, hydroxy, piperidinyl or aryl:

arvl is phenyl or phenyl substituted with halo, C1-6alkyl or C1-6alkyloxy.

9. (Cancelled)

- 10. (Previously Presented) A method for enhancing the effectiveness of chemotherapy of comprising administration of a compound according to claim 1, in a therapeutically effective amount so as to increase sensitivity of cells to chemotherapy, prior to administration of said chemotherapy.
- 11. (Previously Presented) A method for enhancing the effectiveness of radiotherapy of comprising administration of a compound according to claim 1, in a therapeutically effective amount so as to increase sensitivity of cells to ionizing radiation, prior to administration of said radiotherapy.
- (Original) A combination of a compound with a chemotherapeutic agent wherein said compound is a compound of formula (I)

the N-oxide forms, the pharmaceutically acceptable addition salts and the stereo-chemically isomeric forms thereof, wherein

n is 0 or 1; s is 0 or 1:

X is -N= or -CR⁴=, wherein R⁴ is hydrogen or taken together with R¹ may form a bivalent radical of formula -CH=CH-CH=CH-:

Y is -N< or -CH<:

Q is -NH-, -O-, -C(O)-, -CH₂-CH₂- or -CHR⁵-,
wherein R⁵ is hydrogen, hydroxy, C₁₋₆alkyl, arylC₁₋₆alkyl, C₁₋₆alkyloxycarbonyl,
C₁₋₆alkyloxyC₁₋₆alkylamino or haloindazolyl:

R1 is C1.6alkvl or thienvl;

R² is hydrogen or taken together with R³ may form =O;

R3 is hydrogen, C1-6alkyl or a radical selected from

$$\begin{array}{lll} -NR^6R^7 & (a\text{-}1), \\ -O\text{-}H & (a\text{-}2), \\ -O\text{-}R^8 & (a\text{-}3), \\ -S\text{-}R^9 & (a\text{-}4), \text{ or } \\ \hline -C\equiv N & (a\text{-}5). \end{array}$$

wherein

R6 is -CHO, C1-6alkyl, hydroxyC1-6alkyl, C1-6alkylcarbonyl,

 $di(C_{1\text{-}6}alkyl)aminoC_{1\text{-}6}alkyl,\ C_{1\text{-}6}alkylcarbonylaminoC_{1\text{-}6}alkyl,$

 $piperidinyl C_{1\text{--}6}alkyl, piperidinyl C_{1\text{--}6}alkylaminocarbonyl, \ C_{1\text{--}6}alkyloxy,$

C1-6alkyloxyC1-6alkyl, thienylC1-6alkyl, pyrrolylC1-6alkyl,

 $arylC_{1\cdot 6}alkylpiperidinyl,\,arylcarbonylC_{1\cdot 6}alkyl,\,arylcarbonylpiperidinylC_{1\cdot 6}alkyl,$

haloindozolylpiperidinyl C_{1-6} alkyl, or aryl C_{1-6} alkyl(C_{1-6} alkyl)amino C_{1-6} alkyl; and R^7 is hydrogen or C_{1-6} alkyl;

R⁸ is C₁₋₆alkyl, C₁₋₆alkylcarbonyl or di(C₁₋₆alkyl)aminoC₁₋₆alkyl; and

R9 is di(C1-6alkyl)aminoC1-6alkyl;

or R3 is a group of formula

wherein

t is 0. 1 or 2:

Z is a heterocyclic ring system selected from

wherein each R10 independently is hydrogen, C1-6alkyl, aminocarbonyl, hydroxy,

$$-C_{16}$$
alkanediyl $-$ NFI $-$ C $_{16}$ alkanediyl $-$ NFI $-$ C $_{16}$ alkanediyl $-$ C $_{16}$

C₁₋₆alkyloxyC₁₋₆alkyl, C₁₋₆alkyloxyC₁₋₆alkylamino, di(phenylC₂₋₆alkenyl), piperidinylC₁₋₆alkyl, C₃₋₁₀cycloalkyl, C₃₋₁₀cycloalkylC₁₋₆alkyl, aryloxy(hydroxy)C₁₋₆alkyl, haloindazolyl, arylC₁₋₆alkyl, arylC₂₋₆alkenyl, morpholino, C₁₋₆alkylimidazolyl, or pyridinylC₁₋₆alkylamino; each R¹¹ independently is hydrogen, hydroxy, piperidinyl or aryl;

aryl is phenyl or phenyl substituted with halo, C₁₋₆alkyl or C₁₋₆alkyloxy.

 (Previously Presented) A process for preparing a compound as claimed in claim 1, comprising a) hydrolysis of intermediates of formula (VIII),

$$(CH_2)_{R^3} \xrightarrow{R^2} (CH_2)_{\overline{n}} \xrightarrow{X} \xrightarrow{X} \xrightarrow{R^1} C$$

$$(VIII)$$

$$(I)$$

b) cyclization of intermediates of formula (X), and

$$(II_{j}) \xrightarrow{R^{2}} (II_{j}) ($$

c) condensation of an appropriate ortho-benzenediamine of formula (XI) with an ester of formula (XII) into compounds of formula (I), wherein X is N and R² taken together with R³ forms =0, herein referred to as compounds of formula (I-a-1).

$$(CI_{1})_{R^{2}} \xrightarrow{R^{2}} (CI_{2})_{R} \xrightarrow{NH_{2}} R \xrightarrow{NH_{2}} OR^{2} \xrightarrow{(CI_{2})_{R}} R^{2} \xrightarrow{(CI_{2})_{R}} R^{2}$$

$$(CI_{2})_{R^{2}} \xrightarrow{R^{2}} (CI_{2})_{R} \xrightarrow{R^{2}} CI_{2}$$

$$(CI_{2})_{R^{2}} \xrightarrow{R^{2}} (CI_{2})_{R^{2}} \xrightarrow{R^{2}} ($$

- 14. (New) A pharmaceutical composition comprising pharmaceutically acceptable carriers and as an active ingredient a therapeutically effective amount of a compound as claimed in claim 2.
- 15. (New) A pharmaceutical composition comprising pharmaceutically acceptable carriers and as an active ingredient a therapeutically effective amount of a compound as claimed in claim 3.
- 16 (New) A pharmaceutical composition comprising pharmaceutically acceptable carriers and as an active ingredient a therapeutically effective amount of a compound as claimed in claim 4.
- 17. (New) A method of treating in a subject a PARP mediated disorder, said method comprising administering to the subject a therapeutically effective amount of a compound of claim 2.
- 18. (New) A method for enhancing the effectiveness of chemotherapy comprising administration of a compound according to claim 2, in a therapeutically effective amount so as to increase sensitivity of cells to chemotherapy, prior to administration of said chemotherapy.

- 19. (New) A method for enhancing the effectiveness of radiotherapy comprising administration of a compound according to claim 2, in a therapeutically effective amount so as to increase sensitivity of cells to ionizing radiation, prior to administration of said radiotherapy.
- (New) A method of treating in a subject a PARP mediated disorder, said method
 comprising administering to the subject a therapeutically effective amount of a compound of
 claim 3
- 21. (New) A method for enhancing the effectiveness of chemotherapy comprising administration of a compound according to claim 3, in a therapeutically effective amount so as to increase sensitivity of cells to chemotherapy, prior to administration of said chemotherapy.
- 22. (New) A method for enhancing the effectiveness of radiotherapy comprising administration of a compound according to claim 3, in a therapeutically effective amount so as to increase sensitivity of cells to ionizing radiation, prior to administration of said radiotherapy.
- 23. (New) A method of treating in a subject a PARP mediated disorder, said method comprising administering to the subject a therapeutically effective amount of a compound of claim 4.
- 24. (New) A method for enhancing the effectiveness of chemotherapy comprising administration of a compound according to claim 4, in a therapeutically effective amount so as to increase sensitivity of cells to chemotherapy, prior to administration of said chemotherapy.
- 25. (New) A method for enhancing the effectiveness of radiotherapy comprising administration of a compound according to claim 4, in a therapeutically effective amount so as to increase sensitivity of cells to ionizing radiation, prior to administration of said radiotherapy.
- 26 (New) A combination of a compound with a chemotherapeutic agent wherein said compound is a compound of claim 2.

- 27 (New) A combination of a compound with a chemotherapeutic agent wherein said compound is a compound of claim 3.
- 28 (New) A combination of a compound with a chemotherapeutic agent wherein said compound is a compound of claim 4.
- 29. (New) A product made by the process of claim 13.
- 30. (New) A pharmaceutical composition made by the process of claim 13.